

1 REMARKS

2 Status of the Claims

3 Claims 1-42 are pending in the application, new Claims 39-42 having been added in the present
4 amendment. Claims 1, 2, 4, 8, 10, 11, 16, 19-25, 27, 28 and 29 have been amended to correct grammar
5 and language errors, with Claim 19 in particular having been amended to more clearly distinguish the
6 subject matter over the cited art.

7 Brief Summary of Telephone Interview with Examiner Marie Patterson

8 On April 13, 2006, applicants' attorney discussed the current Office Action with
9 Examiner Patterson during a telephone interview. The discussion focused on applicants' Claim 1
10 which was rejected over the Sutherland and Johnston references. Both references are directed towards
11 invention entitled "Ankle Brace."

12 With respect to Claim 1, step (b)(i), applicants' attorney pointed out that one distinguishing
13 feature of applicants' invention over the cited art is the ability of the straps to provide critical support to
14 the foot when in the particularly vulnerable plantarflexed position, and that language to that effect is
15 presently recited in step(b)(i). Examiner Patterson indicated that distinguishing language directed
16 towards a position of a foot is appropriate in a method claim but not in an apparatus claim. However,
17 she did indicate that language that amended the claim to recite differences such as that applicants'
18 tensions band do not cross, and that applicants' tension bands have different attachment points as
19 compared to the cited art, would appear to distinguish over the cited art. The Examiner indicated that
20 she most likely would perform another search to determine if any prior art in combination teaches such
21 features.

22 Applicants' attorney would like to thank Examiner Patterson for her time and willingness to
23 discuss these issues during the telephone interview.

24 Amendment to the Specification

25 Applicants have made numerous amendments to the specification, generally as indicated above.
26 Such amendments do not introduce any new matter into the specification.

27 The amendment to the paragraph beginning at line 19 on page 1 simply clarifies that lateral
28 frontal plane motion of the foot corresponds to inversion (the terms lateral frontal plane motion in
29 inversion have been consistently used throughout the specification), and external rotation in the
30 transverse plane corresponds to motion of the leg. Such motions (i.e., inversion of the foot and external

rotation of the leg) are recognized in the art and described elsewhere in the specification. Such an amendment does not introduce any new matter, but rather adds clarity (consistent with additional disclosure in the specification) to the paragraph.

The amendment to the paragraph beginning at line 20 on page 5 deals with an anchor collar and two medial tension bands. One portion of the paragraph improperly refers to one of the medial tension bands as a lateral tension band. The amendment corrects this inadvertent and obvious error. The amendment to this paragraph also states that the first medial tension band is disposed proximate to the navicular tuberosity and to *the insertion of the posterior tibial tendon into the navicular tuberosity* (added in the amendment). The insertion of the posterior tibial tendon into the navicular tuberosity is a well-known anatomical feature, which is clearly indicated in FIGURE 5 of the application as filed (note that the first medial tension band 15 clearly overlaps the intersection of navicular tuberosity 47 and posterior tibial tendon 48). The intersection of the navicular tuberosity and the posterior tibial tendon is where the posterior tibial tendon is inserted into or attached to the navicular tuberosity. Because FIGURE 5 clearly shows the medial tension band overlapping the insertion of the posterior tibial tendon into the navicular tuberosity, the additional language incorporated into this paragraph does not represent the new matter (the matter having already been presented in the drawings).

The amendment to the paragraph beginning at line 9 on page 8 again clarifies the relationship of one of the medial tension bands to the navicular tuberosity and the insertion of the posterior tibial tendon into the navicular tuberosity. As discussed above, such an aspect of the invention *is not* new matter.

The amendment to the paragraph beginning at line 4 on page 15 simply directs to the reader to page 2 for a more detailed description of the types of injuries the invention is intended to prevent.

The amendment to the paragraph beginning at line 11 on page 17 simply replaces the term "athletics" with the term "athletes" to correct an obvious grammatical error.

Objection to the Drawings

The Examiner has objected to the drawings under 37 C.F.R. § 1.83(a), because the drawings must show every feature of the invention specified in the claims. The Examiner asserts that the Figures do not show four different tension bands.

With respect to the claims, applicants respectfully note that none of the claims actually positively recite four tension bands, although such embodiment is clearly contemplated in the

specification as filed. Claims 24, 25, 37, and 38 positively recite embodiments including three tension bands, comprising a mixture of medial and lateral tension bands. Regardless of whether the claims positively recite three or four tension bands, applicants respectfully disagree that the drawing figures do not support an embodiment including more than two tension bands implemented both laterally and medially. It is true that no single Figure *simultaneously* shows lateral and medial tension bands, however, applicants are aware of no requirement to simultaneously show all elements recited in a claim set in a single drawing figure. The specification clearly describes embodiments where two tension bands are disposed on the lateral side of a foot (in particular, see the text accompanying FIGURES 1-4B), and another embodiment where two tension bands are disposed on the medial side of a foot (see in particular the text accompanying FIGURE 5). Furthermore, the specification *specifically* contemplates embodiments where medial and lateral tension bands are combined (the first paragraph on page 5 discloses an embodiment including two lateral tension bands, explicitly stating that “medial tension bands can also be included”, while the last paragraph on page 5 discloses an embodiment that includes two medial tension bands, explicitly stating that “lateral tension bands such as those described above can also be included”).

FIGURES 1-4B clearly show an ankle support including a plurality of lateral tension bands. FIGURE 5 clearly shows an ankle support including a plurality of medial tension bands. The specification explicitly states that medial and lateral tension bands can be implemented in the same support apparatus. With respect to the claims reciting more than two tension bands implemented laterally and medially, such embodiments are clearly encompassed by the disclosure, and clearly supported by the drawing figures (as a plurality of medial tension bands and a plurality of the lateral tension bands are clearly shown in the Figures). Significantly, for purposes of clarity, each drawing Figure submitted with the specification as filed shows either a lateral or medial view of the invention, thus, no single Figure showed lateral and medial tension bands being simultaneously implemented, even though such embodiments are explicitly disclosed. Applicants respectfully request that the Examiner withdraw the objection to the drawings, or provide a statutory basis for requiring each element recited in a claim to be simultaneously illustrated in a single drawing figure.

Claims 1-6 and 8-27 Rejected under 35 U.S.C. § 112

The Examiner has rejected Claims 1-6 and 8-27 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which

1 applicants regard as the invention. In particular, the Examiner has noted that it is not clear whether the
2 item of footwear should be considered to be part of the claimed invention.

3 The claimed invention encompasses both a method for supporting a person's foot (particularly
4 while the person's foot is in motion), and apparatus for supporting a person's foot. With respect to the
5 apparatus for supporting a person's foot, the support elements *could be* incorporated into an item of
6 footwear, such that the item of footwear and integrated support are sold together as a single commodity.
7 However, a particularly preferred embodiment of the invention is directed to a support apparatus that
8 can be used with an item of footwear already owned by a purchaser, such that the support apparatus can
9 be sold independently of the item of footwear. That is, at least one aspect of the invention is directed to
10 a support apparatus that *does not* include an item of footwear (however, it must be recognized that in
11 such an embodiment, the support apparatus is intended to be used in conjunction with an item of
12 footwear).

13 With respect to Claims 1-6, 9-25, and 27-28, such claims define an apparatus that is intended to
14 be used in conjunction with an item of footwear to provide support to a user's foot, such that the item of
15 footwear should not be positively recited (i.e., where the item of footwear is not a required element of
16 the claimed invention). Such claims have been amended to replace the phrase "the item of footwear"
17 with the phrase "an item of footwear worn during use of the apparatus," to more clearly indicate that
18 while the apparatus is intended to be used with an item of footwear, the item of footwear itself is not
19 part of the apparatus. Note that Claims 7, 8, and 26 each positively recite the item of footwear, such
20 that with respect to Claims 7, 8, and 26, the item of footwear *is* part of the apparatus. These
21 amendments and the remarks above should eliminate any confusion. Accordingly, the rejection of
22 Claims 1-6 and 8-27 as being indefinite under 35 U.S.C. § 112, second paragraph, should be
23 withdrawn.

24 Claims 3, 5, 9 and 11 Rejected under 35 U.S.C. § 112

25 The Examiner further rejected Claims 3, 5, 9, and 11 under 35 U.S.C. § 112, second paragraph,
26 as being indefinite, because they recite functional language as opposed to structural elements.
27 Applicants respectfully submit that this rejection is improper, because functional limitations in
28 apparatus claims are in accord with USPTO policies and procedures, so long as the functional limitation
29 sets definite boundaries on the patent protection sought.

30 MPEP 2173.05(g) clearly states that:

1 A functional limitation is an attempt to define something by what it does, rather
2 than by what it is (e.g., as evidenced by its specific structure or specific ingredients).
3 There is nothing inherently wrong with defining some part of an invention in functional
4 terms. Functional language does not, in and of itself, render a claim improper. *In re*
5 *Swinehart*, 439 F.2d 210, 169 USPQ 226 (CCPA 1971).

6 MPEP 2173.05(g) provides examples of acceptable uses of functional language in apparatus
7 claims. In one application that was directed to a kit of component parts capable of being assembled, the
8 court held that limitations such as “members adapted to be positioned” and “portions being resiliently
9 dilatable whereby said housing may be slidably positioned” served to precisely define the structural
10 attributes of the interrelated component parts of the claimed invention. Similarly, Claims 3, 5, 9, and
11 11 employ functional language to articulate definitive attributes of structural elements (i.e., to further
12 define specific and definitive attributes corresponding to structural elements).

13 Claim 3 recites that “a tension of each tension band is readily adjustable by a user to achieve the
14 desired tension for the tension band.” This functional language defines an additional aspect of the
15 tension bands recited in Claim 1. According to Claim 3, each tension band *must be adjustable*. Such a
16 limitation is not part of Claim 1 (i.e., Claim 1 encompasses all possible tension bands, whereas Claim 3
17 only encompasses tension bands that are adjustable). Thus, the functional language of Claim 3 further
18 defines the structural element of a tension band in a manner that can be readily understood by one of
19 ordinary skill in the art. The functional language of Claim 3 would be indefinite if it could be shown
20 that one of ordinary skill in the art would not be able to understand how the scope of the recited element
21 had been modified (i.e., if the scope of patent protection being sought could not be understood by one
22 of ordinary skill in the art given the context of the claim). In this case, Claim 3 clearly further limits the
23 scope of the tension bands in a manner that is readily understandable. There simply is no requirement
24 to recite any specific structure that enables the tension bands to be adjustable, so long as one of ordinary
25 skill in the art understands from the claim language that the tension bands defined by Claim 3 *must be*
26 *adjustable*.

27 Claim 5 recites that “each tension band includes means for achieving the desired tension by at
28 least one of”, after which a plurality of different techniques for achieving the desired tension are recited.
29 Thus, Claim 5 further limits the adjustable tension bands defined in Claim 3, by stating that the tension
30 bands encompassed by Claim 5 must be adjustable in at least one of the three specific manners. Any
structure (i.e., any tension band) that cannot be adjusted in the recited manners is not encompassed by

1 Claim 5. There is no evidence to indicate that one of ordinary skill in the art would not be able to
2 understand how the tension bands defined by Claim 5 are further limited.

3 Claim 9 recites a support foundation that must be capable of being disposed substantially
4 adjacent to a particular portion of the user's ankle when the apparatus is being used. Claim 9 further
5 defines the support foundation in a clearly understandable manner. Claim 9 can only read on a support
6 foundation that is capable of being positioned on the specific portion of the user's ankle defined in the
7 claim. Support foundations having a structure that does not facilitate such a function are not
8 encompassed by Claim 9. There is no evidence that one of ordinary skill in the art would not be able to
9 evaluate a support foundation to determine whether or not that support foundation could be positioned
10 on a user's ankle as recited in Claim 9.

11 Claim 11 recites a specific structural relationship/orientation between the second lateral tension
12 band and an item of footwear worn during use of the apparatus. Clearly, any tension that cannot
13 achieve such an orientation cannot read on Claim 11, and Claim 11 thus further limits the scope of the
14 second lateral tension band in a manner enabling one of ordinary skill to understand the scope of
15 protection being sought. There is no evidence that one of ordinary skill in the art would not be able to
16 evaluate a tension band to determine whether or not a tension band could achieve the specific
17 orientation defined in Claim 11.

18 As described above, Claims 3, 5, 9, and 11 each employ functional language to further define a
19 structural element of the claimed apparatus, using language that would convey to one of ordinary skill
20 in the art definite boundaries on the patent protection sought. Accordingly, applicants' use of
21 functional language is entirely consistent with PTO policies and procedures as outlined in
22 MPEP 2173.05(g), and the rejection of Claim 3, 5, 9 and 11 as being indefinite should be withdrawn.

23 Claim 16 Rejected under 35 U.S.C. § 112

24 The Examiner has rejected Claim 16 as confusingly vague and indefinite, indicating that it is not
25 clear what disclosed elements applicants are referring to with language such as "tongue."

26 Applicants have amended Claim 16 to replace the term "tongue" with the term "portion." The
27 first portion of the ankle collar is configured to removably attach the ankle collar to the user's leg, while
28 the second portion of the ankle collar is configured to secure each tension band to the ankle collar.
29 Such an embodiment is shown in FIGURES 2 and 4A, and is specifically described in the specification
30 as filed in connection with the description of FIGURE 2. The upper portion is referred to in the

1 specification as upper strap 26a, while the lower portion is referred to in the specification as lower
2 strap 26b. Such an amendment ought to eliminate any confusion with respect to the recited elements.

3 Accordingly, applicants respectfully request that the rejection of Claim 16 be withdrawn.

4 Claims Rejected under 35 U.S.C. § 102(b)

5 The Examiner has rejected Claims 1-20, 23, 26-34 and 36 under 35 U.S.C. § 102(b) as being
6 clearly anticipated by Sutherland (U.S. Patent No. 4,753,229, hereinafter referred to as "Sutherland").
7 The Examiner has rejected Claims 1-5, 7-14, 16-17, 19-23, 26-33 and 36 under 35 U.S.C. § 102(b) as
8 being clearly anticipated by Johnston (U.S. Patent No. 1,666,290, hereinafter referred to as "Johnston").
9 Applicants respectfully disagree.

10 In the interest of reducing the complexity of the issues for the Examiner to consider in this
11 response, the following discussion focuses on independent Claims 1, 19, 27, 28, 29, and 36. The
12 patentability of each remaining dependent claim is not necessarily separately addressed in detail.
13 However, applicants' decision not to discuss the differences between the cited art and each dependent
14 claim should not be considered as an admission that applicants concur with the Examiner's conclusion
15 that these dependent claims are not patentable over the disclosure in the cited references. Similarly,
16 applicants' decision not to discuss differences between the prior art and every claim element, or every
17 comment made by the Examiner, should not be considered as an admission that applicants concur with
18 the Examiner's interpretation and assertions regarding those claims. Indeed, applicants believe that all
19 of the dependent claims patentably distinguish over the references cited. Moreover, a specific traverse
20 of the rejection of each dependent claim is not required, since dependent claims are patentable for at
21 least the same reasons as the independent claims from which the dependent claims ultimately depend.

22 Patentability of Independent Claim 1 over Sutherland and Johnston

23 Claim 1 recites an apparatus configured to be used with an item of footwear, to provide support
24 and stabilization to a user's foot. The claimed apparatus includes a support foundation and at least one
25 of a first lateral tension band and a first medial tension band. The Examiner correctly notes that the
26 cited art discloses both lateral tension bands (Sutherland and Johnston), and medial tension bands
27 (Johnston). However, the lateral and medial tension bands disclosed by the prior art are simply not
28 equivalent to the first lateral tension band and the first medial tension band defined in Claim 1.

29 With respect to the lateral tension bands disclosed by the cited art, it is critical to recognize that
30 the cited art does NOT teach or suggest a lateral tension band that supports and stabilizes the user's foot

1 while the user's foot is in a *plantarflexed position*, as recited in paragraph (b)(i) of applicants' Claim 1.
2 This aspect of the invention was briefly discussed in the above-noted telephone interview, in which the
3 Examiner articulated the position that distinguishing language directed towards a position of a foot is
4 appropriate in a method claim, but not in an apparatus claim. Applicants respectfully disagree with the
5 Examiner's position, and note the functional language (highlighted below in italic font) represents a
6 distinguishing characteristic with respect to the cited art, generally for the same reasons discussed
7 above in applicants' traversal of the Examiner's rejection of Claims 3, 5, 9, and 11 under
8 35 U.S.C. § 112, second paragraph.

9 In its entirety, paragraph (b)(i) of applicants' independent Claim 1 recites (with emphasis
10 added):

11 a first lateral tension band configured to engage the support foundation, and to
12 engage an item of footwear at a first location disposed on the item of footwear
13 proximate to a lateral quarter of the item of footwear, such that the first lateral tension
14 band supports and stabilizes the user's foot by limiting lateral frontal plane motion and
15 external rotation traverse plane motion to avoid an injury, a reoccurrence of injury, or
16 exacerbating an existing injury of a user, the first lateral tension band being then
17 *responsible for a majority of the support and stabilization of a user's foot provided by
the apparatus when the user's foot is properly positioned in the item of footwear, the
first lateral tension band is tensioned to a desired tension, and the user's foot is in a
plantarflexed position; and*

18
19 As will be explained in greater detail below, applicants' position is essentially that the cited art
20 discloses a support apparatus including a lateral tension band that can provide support to user's foot in
21 the neutral position, but that adequate support is not provided by the support apparatus disclosed by the
22 prior art when the user's foot is in a plantarflexed position. The functional language included in
23 Claim 1 places one of ordinary skill in the art on notice that the apparatus defined by Claim 1 *must be*
24 capable of providing support to a user's foot while the user's foot is in the plantarflexed position.
25 Regardless of what other structural similarities may exist between the cited art and the present
26 invention, if the prior art is not capable of providing support to the user's foot while in the plantarflexed
27 position, then the prior art cannot logically anticipate the present invention.

28 FIGURE 3C schematically illustrates an embodiment of the present invention providing support
29 to a user's right foot, while the foot is in the *plantarflexed position*. Applicants' specification explicitly
30 states "...in a plantarflexed position...tension band 18a is particularly effective in providing support..."
(page 16, lines 3-5). In addition, applicants disclose how a specific tension band provides a majority of

1 the support and stabilization of the user's forefoot while it is in the vulnerable plantarflexed position
2 (page 13, lines 30-34).

3 In contrast, the supports disclosed by Sutherland and Johnston do NOT provide a lateral tension
4 band that supports and stabilizes the user's foot *while in the plantarflexed position*, because
5 Sutherland's and Johnston's straps will relax when the user's forefoot is extended (as in a plantarflexed
6 position), thus their straps will not provide support to the forefoot in the plantarflexed position.
7 Significantly, the forefoot is particularly vulnerable in plantarflexed portion. A detailed explanation as
8 to why the straps disclosed by Johnson and Sutherland relax when the user's foot is in a plantarflexed
9 position can be found in the attached Declaration. As described in the Declaration, providing support to
10 the forefoot while the foot is in the plantarflexed position protects the foot and especially the ankle by
11 reducing the likelihood of the most common type of lateral ankle sprain associated with inversion in the
12 plantarflexed position (i.e., sprains involving injury of the anterior talofibular ligament, which is
13 associated with the forefoot) from occurring.

14 The Examiner particularly indicates that Sutherland's strap 160 (of FIGURE 2) appears
15 equivalent to applicants' lateral tension bands. In the enclosed Declaration, co-inventor Richard T.
16 Bouché, DPM explains that strap 160 is attached on the back of the ankle collar which is behind
17 (posterior to) the ankle axis of motion. So when the ankle plantarflexes, this strap will actually be lax
18 and will therefore not be able to resist the forces experienced in the plantarflexed position, namely
19 plantarflexion and inversion. Similarly, Dr. Bouché also explains how cord 13 of Johnston will also
20 experience a loss of tension when the foot is plantarflexed. Significantly, the prior art straps intended to
21 support the forefoot are coupled to the support structure *posteriorly of the ankle* (i.e., behind at the
22 ankle). The strap in applicants' claimed invention providing support in the plantarflexed position (i.e.,
23 tension band 18), is coupled with the support structure generally in alignment with the ankle (see
24 tension band 18 of FIGURES 2, and 3A-3C). In such a position, tension band 18 remains taut when
25 the foot is in the neutral position (FIGURE 3A), when the foot is in the dorsiflexed position
26 (FIGURE 3B), *and when the foot is in the plantarflexed position (FIGURE 3C)*. Because the straps
27 disclosed by the cited art are not taut in the plantarflexed position, the cited art cannot logically teach or
28 suggest a tension band that is *responsible for a majority of the support and stabilization of a user's foot*
29 *provided by the apparatus when the user's foot is properly positioned in the item of footwear, the first*
30 *lateral tension band is tensioned to a desired tension, and the user's foot is in a plantarflexed position.*

As discussed above in detail, the use of functional language is acceptable in an apparatus claim, as long as one of ordinary skill in the art can understand the boundaries of patent protection being sought. Claim 1 includes language that clearly defines these boundaries (a tension band providing support when the foot is in a plantarflexed position), and as discussed above the cited art does not disclose an apparatus including an equivalent tension band.

Note that FIGURE 2 shows that both tension band 16 and tension band 18 are coupled to the central portion of ankle collar 14a/b (substantially overlapping, with the attachment of tension band 18 being just slightly anterior to tension band 16), such that when the apparatus is worn by the user, the attachment locations for tension bands 16 and 18 are substantially aligned with the user's ankle. It should be noted that embodiments where tension band 18 attaches to the ankle collar anterior to the ankle (i.e., ahead of the ankle) are clearly encompassed in the present invention. The specification as filed clearly teaches that the attachment point where tension band 18 couples with the ankle collar can be moved relative to the attachment point where tension band 16 couples with the ankle collar, to accommodate different sizes of feet (see page 14, lines 20-23). Thus, the claim recitation directed to a support apparatus including a strap configured to protect a user's foot while in the plantarflexed position encompasses embodiments in which the attachment location where tension band 18 couples with the ankle collar is substantially aligned with a user's ankle when the apparatus is in use, *and* also embodiments in which the attachment location where tension band 18 couples with the ankle collar is anterior of the a user's ankle when the apparatus is in use, since tension band 18 in both embodiments will be taut (i.e., will be capable of providing support) when the user's foot is in the plantarflexed position.

With respect to the medial tension bands disclosed by the cited art, it is important to recognize that while Johnston discloses that his apparatus can be used laterally or medially, Johnston does not teach or suggest the importance of positioning a medial strap adjacent to the *navicular tuberosity* of the user's foot. Thus, the medial straps disclosed by Johnston are not equivalent to the first medial tension band as defined in applicants' Claim 1, nor is there any evidence that it would have been obvious to modify Johnston's medial straps to achieve an equivalent medial tension.

As described above, the first medial and the first lateral tension bands defined in Claim 1 are not equivalent to the medial and lateral straps disclosed by the cited art. Accordingly, the rejection of independent Claim 1 under 35 U.S.C. § 102(b) over the cited art should be withdrawn.

Claims 2-18 ultimately depend from independent Claim 1. Because dependent claims inherently include all of the steps or elements of the independent claim from which the dependent claims ultimately depend, dependent Claims 2-18 are patentable for at least the same reasons discussed above with regard to independent Claim 1. Accordingly, the rejection of dependent Claims 2-18 under 35 U.S.C. § 102(b) over Sutherland and Johnston should be withdrawn.

Patentability of Independent Claim 19 over Sutherland and Johnston

A significant difference exists between the apparatus defined by applicants' independent Claim 19, and the apparatus disclosed by Sutherland and Johnston, because the cited art does NOT either teach or suggest tension bands that do NOT overlap (or cross, or intersect) with one another. As amended, Claim 19 recites (with emphasis added):

(c) a second tension band that engages the support foundation, and adapted to engage an item of footwear at a second location disposed on the item of footwear proximate to a front quarter of the item of footwear, the second location being closer to a vamp of the item of footwear than to the heel counter of the item of footwear, so that when a user's foot is properly positioned in the item of footwear and the second tension band is tensioned to a desired tension, an acute angle is formed between the second tension band and the sole of the item of footwear, at a side of the second tension band that is closer to the first tension band and the second tension band does not overlap an intermediate portion of the first tension band, said intermediate portion being disposed between the support foundation and the first location.

As shown in applicants' FIGURE 2, tension band 16 and tension 18 do not overlap, except for some minimal overlap adjacent to pivotal attachment 30. As shown in FIGURES 3A-3C, the tension bands course distally to respective attachment points (i.e., D-rings 20 and 22). Thus, the intermediate portion of applicants' tension bands, that portion disposed between the support foundation (i.e., ankle collar 14a) and the first location (i.e., D-ring 20), do not overlap, cross or intersect.

Significantly, the intermediate portions of the straps/tension bands disclosed by Sutherland and Johnston do overlap. Such an overlap is clearly recognizable in Sutherland's FIGURE 2 and Johnston's FIGURE 1. Clearly, Sutherland and Johnston do not teach or suggest the non-overlapping strap configuration recited in applicants' Claim 19 (as amended). Any modification of the cited art required to achieve an equivalent structure would appear to impermissibly rely upon hindsight. Accordingly, the rejection of independent Claim 19 under 35 U.S.C. § 102(b) over the cited art should be withdrawn.

Claims 20-23 and 26 ultimately depend from independent Claim 19. Because dependent claims inherently include all of the steps or elements of the independent claim from which the dependent claims ultimately depend, dependent Claims 20-23 and 26 are patentable for at least the same reasons discussed above with regard to independent Claim 19. Accordingly, the rejection of dependent Claims 20-23 and 26 under 35 U.S.C. § 102(b) over Sutherland and Johnston should be withdrawn.

Patentability of Independent Claims 27 and 28 over Sutherland and Johnston

As with independent Claim 1, independent Claims 27 and 28 each include functional language which requires the apparatus incorporate a tension band that supports and stabilizes the user's foot in the plantarflexed position. As discussed in detail above with respect to the rejection of Claim 1, the cited art does not teach or suggest a tension band that supports and stabilizes the user's foot *while in a plantarflexed position* as recited in paragraph (c) of Claims 27 and 28. Thus, Claims 27 and 28 are patentably distinguishable over the cited art, for essentially the same reasons as Claim 1. Accordingly, the rejection of Claims 27 and 28 as being anticipated by the cited art should be withdrawn.

Patentability of Independent Claim 29 over Sutherland and Johnston

Claim 29 is a method claim that specifically recites the step of supporting and stabilizing the user's foot in a plantarflexed position. As discussed in detail above, particularly with respect to the discussion of the rejection of Claim 1 and the attached declaration, the straps disclosed by Sutherland and Johnston that attach to the item of footwear proximate the forefoot will be taut while the foot is in a neutral position (thereby providing support to the forefoot), but will be slack (because of where the straps connect to the stabilization support) while the foot is in the plantarflexed position (such that the straps will not provide support to the forefoot in the plantarflexed position). The cited art simply does not teach or suggest providing support in the plantarflexed position. Nor is there any evidence that the modifications to the cited art required to achieve an equivalent invention would have been obvious to one of ordinary skill. Accordingly, the rejection of independent Claim 29 under 35 U.S.C. § 102(b) over Sutherland and Johnston should be withdrawn.

Claims 30-34 ultimately depend from independent Claim 29. Because dependent claims inherently include all of the steps or elements of the independent claim from which the dependent claims ultimately depend, dependent Claims 30-34 are patentable for at least the same reasons discussed above with regard to independent Claim 29. Accordingly, the rejection of dependent Claims 30-34 under 35 U.S.C. § 102(b) over the cited art should be withdrawn.

1 Patentability of Independent Claim 36 over Sutherland and Johnston

2 Claim 36 is also a method claim that specifically recites the step of supporting and stabilizing
3 the user's foot when the user's foot is in a plantarflexed position. As noted above, the cited art simply
4 does not teach or suggest providing support in the plantarflexed position. Nor is there any evidence that
5 the modifications to the cited art required to achieve an equivalent invention would have been obvious
6 to one of ordinary skill. Accordingly, the rejection of independent Claim 30 as being anticipated by the
7 cited art should be withdrawn.

8 Claims 37-38 ultimately depend from independent Claim 36. Because dependent claims
9 inherently include all of the steps or elements of the independent claim from which the dependent
10 claims ultimately depend, dependent Claims 37-38 are patentable for at least the same reasons
11 discussed above with regard to independent Claim 36. Accordingly, the rejection of dependent
12 Claims 37-38 under 35 U.S.C. § 102(b) over the cited art should be withdrawn.

13 Claims Rejected under 35 U.S.C. § 103(a)

14 The Examiner has rejected Claims 21-22, 24-25, 37 and 38 as being unpatentable under 35
15 U.S.C. § 103(a) over Sutherland and in view of Johnston. The Examiner has also rejected Claim 35 as
16 being unpatentable under 35 U.S.C. § 103(a) over Sutherland and in view of Broadhurst (U.S. Patent
17 No. 4,982,733, hereinafter referred to as "Broadhurst"). Applicants respectfully disagree for the
18 following reasons.

19 Claims 21-22 and 24-25 ultimately depend from independent Claim 19. Claims 37 and 38
20 ultimately depend from independent Claim 36. Claim 35 ultimately depends from independent
21 Claim 29. Because dependent claims inherently include all of the steps or elements of the independent
22 claim from which the dependent claims ultimately depend, dependent Claims 21-22 and 24-25 are
23 patentable for at least the same reasons discussed above with regard to independent Claim 19,
24 dependent Claim 35 is patentable for at least the same reasons discussed above with regards to
25 independent Claim 29, and dependent Claims 37 and 38 are patentable for at least the same reasons
26 discussed above with regard to independent Claim 36. Accordingly, the rejection of dependent
27 Claims 21-22, 24-25, 35, 37 and 38 under 35 U.S.C. § 103(a) over the cited art should be withdrawn.

28 Patentability of Newly Added Claims 39-42

29 Applicants have added new Claims 39-42 in the present amendment. New Claim 39 recites an
30 apparatus for providing support to a user's foot comprising a stabilization support and a tension band.

1 As defined in Claim 39, the tension band has a distal end and a proximal end, the distal end being
2 configured to engage an item of footwear when the apparatus is worn by a user. The proximal end of
3 the tension band is *coupled to the support foundation at a location proximate a central portion of the*
4 *support foundation, such that when the apparatus is worn by a user, the location is at least one of*
5 *substantially aligned with a user's ankle and anterior to a user's ankle.* The *substantially aligned with*
6 *a user's ankle* configuration is clearly illustrated in FIGURES 2-3A of the pending application, with
7 FIGURE 2 in particular showing the proximal ends of tension bands 16 and 18 substantially
8 overlapping where they attach to the ankle collar, and FIGURES 3A-3C clearly showing tension
9 band 16 being aligned with the ankle (thus, the common attachment location for tension bands 16 and
10 18 shown in FIGURE 2 is substantially aligned with the user's ankle, since tension band 16 extends
11 below the ankle collar in a perpendicular direction). The configuration described as *anterior to a user's*
12 *ankle* is clearly illustrated in FIGURE 4A of the pending application, which illustrates the proximal
13 ends of tension band 16 and 18 attached to the ankle collar at different locations (i.e., not substantially
14 overlapping), with tension band 16 being substantially aligned with the ankle, and tension band 18
15 being disposed anterior of the ankle. Note that the specification as filed clearly states that a distance
16 between the locations where tension band 16 and tension band 18 are attached to the ankle collar can be
17 varied, such that embodiments in which the attachment location between tension band 18 and the ankle
18 collar is disposed even further anteriorly of the ankle than shown in FIGURE 4A are clearly
19 encompassed (hence the recitation *anterior to a user's ankle* is entirely consistent with the disclosure
20 and drawings as filed).

21 Claim 39 further recites that the tension band extends downwardly beyond the support
22 foundation, such that an acute angle is formed between the tension band and the support foundation.
23 Note that tension band 18 (FIGURES 2, 3A-3C, and 4) and tension band 46 (FIGURE 5) each extend
24 downwardly from the ankle collar, such that an acute angle is formed between the tension band and the
25 ankle collar (i.e., the tension band and ankle collar are not perpendicular to one another, as is the case
26 with tension band 16 of FIGURES 2, 3A-3C, and 4; and tension band 44 of FIGURE 5). The cited art
27 does disclose tension bands that extend downwardly and away from an ankle collar, such that an acute
28 angle is formed between the tension band and the ankle collar. However, the tension bands disclosed
29 by the cited art (i.e., strap 160 and cord 13) that are not perpendicular to the ankle support *are not*
30 attached to the ankle support at a central portion of the ankle support; rather, such tension bands are

1 attached to either a *rear portion* or a *front portion* of the ankle support (this configuration can be clearly
2 seen in FIGURE 2 of Sutherland and FIGURE 1 of Johnston). Absent the application of impermissible
3 hindsight, there appears to be no reason for one of ordinary skill in the art to modify the tension bands
4 disclosed by the cited art to achieve a tension band equivalent to that defined in new Claim 39.
5 Accordingly, new Claim 39 patentably distinguishes over the cited art.

6 New Claim 40 depends from new Claim 39, and further recites that the tension band defined in
7 Claim 39 must be capable of supporting a user's foot in a plantarflexed position. As discussed in detail
8 above, even though Claim 40 employs functional language to further define the tension band, the use of
9 functional language limitations in apparatus claims conforms to USPTO policy and procedure as long
10 as the functional language clearly defines the patent protection being sought (see MPEP 2173.05(g)).
11 With respect to Claim 40, the functional language limits the tension band in a manner that can be
12 readily understood and analyzed by one of ordinary skill in the art. As discussed in detail above, the
13 cited art does not teach or suggest any tension band that is capable of supporting a user's foot in a
14 plantarflexed position. Accordingly, new Claim 40 patentably distinguishes over the cited art.

15 New Claim 41 depends from new Claim 39, and further recites that the tension band defined in
16 Claim 39 must be capable of supporting a posterior tibial tendon proximate a navicular tuberosity in a
17 user's foot, when the apparatus is worn by a user. FIGURE 5 clearly shows tension band 46 providing
18 support to posterior tibial tendon 48, where the posterior tibial tendon is inserted into navicular
19 tuberosity 47. As noted above, such functional language in an apparatus claim is acceptable, as long as
20 the functional language clearly defines the patent protection being sought. With respect to Claim 41,
21 the functional language limits the tension band in a manner that can be readily understood and analyzed
22 by one of ordinary skill in the art. As discussed in detail above, the cited art does not teach or suggest
23 any tension band that is capable of supporting the posterior tibial tendon at the point it is inserted into
24 the navicular tuberosity. Accordingly, new Claim 41 patentably distinguishes over the cited art.

25 New Claim 42 recites an apparatus for providing support to a user's foot comprising a
26 stabilization support and two tension bands. As defined in Claim 42, each tension band has a distal end
27 and a proximal end, each distal end being configured to engage an item of footwear when the apparatus
28 is worn by a user. Each proximal end is coupled to the support foundation at a location proximate a
29 central portion of the support foundation, such that when the apparatus is worn by a user, the location is
30 at least one of substantially aligned with a user's ankle and anterior to a user's ankle. As noted above,

1 tension bands being coupled to a central portion of the support foundation can be clearly seen in
2 FIGURES 1-5 of the pending application. Claim 42 further recites that the first tension band extends
3 downwardly beyond the support foundation, such that a substantially right angle is formed between the
4 first tension band and the support foundation; and that the second tension band extends downwardly
5 beyond the support foundation, such that an acute angle is formed between the second tension band and
6 the support foundation. While the cited art does disclose tension bands that extends downwardly in a
7 perpendicular fashion from an ankle collar, the cited art simply does not teach or suggest a tension band
8 coupled to a central portion of a support foundation/ankle collar, which also extends downwardly to
9 form an acute angle between the tension band and the support foundation. Absent the application of
10 impermissible hindsight, there appears to be no reason for one of ordinary skill in the art to modify the
11 tension bands disclosed by the cited art to achieve a second tension band equivalent to that defined in
12 new Claim 42. Accordingly, new Claim 42 patentably distinguishes over the cited art.

13 In view of the Remarks set forth above, it will be apparent that the claims remaining in this
14 application define a novel and non-obvious invention, and that the application is in condition for
15 allowance and should be passed to issue without further delay. Should any further questions remain,
16 the Examiner is invited to telephone applicants' attorney at the number listed below.

17 Respectfully submitted,

18
19 /mike king/
20 Michael C. King
21 Registration No. 44,832

22 SKM/RMA:elm
23
24
25
26
27
28
29
30